


BUDGET  
ISSUE PAPER



**Homeownership:  
The Changing Relationship  
of Costs and Incomes,  
and Possible Federal Roles**

---

January  
1977



Congressional Budget Office  
Congress of the United States  
Washington, D.C.

HOMEOWNERSHIP: THE CHANGING RELATIONSHIP  
OF COSTS AND INCOMES, AND  
POSSIBLE FEDERAL ROLES

The Congress of the United States  
Congressional Budget Office

---

For sale by the Superintendent of Documents, U.S. Government Printing Office  
Washington, D.C. 20402 - Price \$1.40

---

PREFACE

---

The 95th Congress will be considering legislation to continue or revise programs to assist homeowners. How difficult the problems of buying and maintaining a home have become and for whom these problems are most severe are among the questions that are bound to influence the Congress' deliberations about the extent and type of federal assistance to make available. This Budget Issue Paper examines the changes that have occurred between 1970 and 1975 in households' ability to afford their own homes. In addition, the report discusses some proposals to make homeownership easier.

The paper was prepared by Neil S. Mayer of the Human Resources Division of the Congressional Budget Office, under the supervision of David S. Mundel and C. William Fischer. Jill Bury typed the several drafts. The manuscript was edited and prepared for publication under the supervision of Johanna Zacharias.

Alice M. Rivlin  
Director

January 1977



---

TABLE OF CONTENTS

---

	<u>Page</u>
Preface . . . . .	iii
Summary . . . . .	xi
Chapter I. Introduction . . . . .	1
Chapter II. Categories of Homeowners . . . . .	3
Chapter III. Changes in Homeownership	
Affordability for Categories of Homeowners . . . . .	7
First-Time Homebuyers . . . . .	7
Buyers of Homes Who Are Already	
Homeowners . . . . .	16
Homeowners Who Do Not Move During	
the Period . . . . .	20
Chapter IV. Downpayment . . . . .	23
Chapter V. Components of House	
Price Increase . . . . .	27
Chapter VI. The Potential of Federal	
Action to Improve Affordability . . . . .	33
Affordability Standards . . . . .	33
Important Policy Criteria . . . . .	35
Policy Options . . . . .	36
Appendix . . . . .	49
Glossary . . . . .	55

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150

---

LIST OF TABLES

---

	<u>Page</u>
1. First-Time Homepurchasers by Age of Household Head, 1974 . . . . .	8
2. Homeownership by Income of Households, 1974 . . . . .	9
3. Housing Costs and Cost Changes for a First-Time Homebuyer of an Existing Home in Each Year 1970-1975 . . . . .	10
4. Housing Costs and Cost Changes for a First-Time Homebuyer of a Median Price New Home . . . . .	12
5a. Cost Changes for a First-Time Homebuyer of a Fixed-Quality New Home . . . . .	13
5b. Changes in Sales Prices of New Homes. . . . .	13
6. Changes in Family Income Quintiles, 1970-1975 . . . . .	15
7. Housing Costs and Cost Changes for a Second-Time Homebuyer of an Existing Home in Each Year 1970-1975 . . . . .	18
8. Housing Costs and Cost Increases for Non-Mover Homeowners, 1970-1975 . . . . .	20
9. Percent Changes in Housing Costs, Incomes, and General Consumer Prices, 1970-1975 . . . . .	22
10. House Prices, Downpayments, and Relation of Downpayments to Median Income, 1970-1975 . . . . .	24
11a. Changes in Components of Overall Homeownership Costs, Median-Price New Homes, 1970-1975 . . . . .	28





	<u>Page</u>
11b. Changes in Components of Overall Homeownership Costs, Fixed-Quality New Homes, 1970-1975. . . . .	28
12a. Percent Contributions of Homeownership Cost Components to Total Cost Increases, Median-Price New Homes. . . . .	29
12b. Percent Contributions of Homeownership Cost Components to Total Cost Increases, Fixed-Quality New Homes . . . . .	29
13a. Changes in Share of Major Cost Items for a Typical Single-Family House . . . . .	30
13b. Hard Cost Average Construction Costs for Single-Family Detached Housing and Percent Distribution. . . . .	31
14. Summary of Policy Impacts . . . . .	46

\*

---

## SUMMARY

---

Is it becoming more difficult for an American family to buy and maintain its own home? This is the question known as "homeownership affordability." This paper examines changes in homeownership affordability over a five-year period, 1970-1975, then discusses several proposals that would affect affordability in the future.

Budget impacts of proposed measures could vary widely. Proposals directed toward macroeconomic conditions--increasing income growth and slowing the general rise in all prices, including housing--take many forms at various costs. For home-purchase subsidy programs, costs per family differ substantially with who is served and how. Numbers of eligible and likely participants also differ from program to program. Furthermore, many of the proposals are not entitlement programs--not all eligible people are guaranteed program benefits. In such cases, the Congress can directly choose maximum budget levels and thereby determine the number of families assisted.

To make choices about the level and type of support for homeownership, the Congress might want to consider

- o The extent of the affordability problem and who suffers it, and
- o The likely effectiveness of and distribution of benefits under proposed solutions.

One reasonable measure of changes in homeownership affordability is the change in the relation between income levels and costs of homeownership. But there is no satisfactory measure of changes in homeownership costs for all homeowners as a single group. The patterns of housing costs for various categories of homeowners are very different.

### Categories of Homeowners

Cost changes from 1970 to 1975 had quite different effects on three distinct categories of homeowners:

- o Families buying a home (new or existing) for the first time during the period--first-time buyers.
- o Families already owning a home who move to another during the period--repurchasers.
- o Families already owning a home who remain in place during the period--non-movers.

The first-time homebuyer is confronted by the full spectrum of cost increases--changes in sales price, interest rate, property tax, hazard insurance, maintenance and repairs, and heating and utilities. But the family which already owns a house, the repurchaser, may well have any increase in house sales prices reflected in both the price at which it can sell its present house and the price of the house to be purchased. The sales proceeds can obviously be applied to the purchase price. To the extent of this offset, the family confronts increases only in the cost components other than purchase price (but including interest rate changes). The family staying in its present house, the non-mover, faces no change in purchase price and interest rate (and thus no change in mortgage payment) and is confronted only by increases in "operating" expenses (property taxes, hazard insurance, maintenance and repairs, and heating and utilities).

### Who Has The Affordability Problem?

First-time purchasers of homes (about half of all homebuyers in a given year) on average suffered substantial declines in affordability between 1970 and 1975, with their costs for median new homes rising almost twice as fast as their income, and their costs for existing homes rising one-and-one-half times as fast as

income. 1/ This was true for young families, who make up the bulk of first-time buyers, as well as for families as a whole. Still, the proportion of young families and all families owning their own homes did continue to grow through 1974 (latest data available, which miss the effects of high unemployment and inflation in 1975).

Typical repurchasers benefited from increased value in the homes they sold--value that could be applied against the increased price of the houses they purchased. As a result, these repurchasers generally had incomes rising faster than their housing costs for the same five-year period--about one-and-one-half times as fast for families buying a home of the same value as their present one and whose original home rose in value at the same rate as median house prices. Homeowners wishing to buy more expensive homes than their present ones necessarily faced greater cost increases, but nonetheless they could buy somewhat more valuable houses without facing faster rises in housing costs than in incomes.

Homeowners who did not move during the period (over half of all homeowners), and thus faced increases only in housing operating costs, had incomes rising even faster relative to costs. These non-movers not only did not become "housepoor" over the period, but on average increased their incomes about twice as fast as their housing costs. Typical elderly non-movers, the focus of some particular concern, fared even better than the average.

Changes in homeownership costs, incomes, and general prices are summarized in the following table.

---

1/ The median new home appears to have increased modestly in quality over the 1970-1975 period. The cost of a new house of fixed quality increased about 1 3/4 times as fast as income.

PERCENT CHANGES IN HOUSING COSTS, INCOME, AND  
GENERAL CONSUMER PRICES, 1970-1975

---

Housing Costs For:	
First-time buyer of existing housing	63.0
First-time buyer of new housing	
Median-price (not controlled for quality)	82.4
Controlled for quality	59.8
Rebuyers (assuming buying similar house)	27.3
Non-movers	22.8
Median Family Income	39.0
Consumer Price Index	38.6

---

Changes in affordability (income to housing cost ratios) do not differ significantly between income groups, because families in various parts of the income spectrum experienced approximately the same rate of income growth during the 1970-1975 period. However, the real difficulty for low income families is quite different. They were not generally able to afford homeownership even at the beginning of the period. The five-year cost increases did outstrip their income increases (for people not presently owning houses, which is more common for lower-income households), but their affordability problem was already acute before that.

In interpreting all these results, it is important to note that the experiences of other groups--subdivided by such characteristics as geography, race, or sex of household head--were not separately examined. The geographical problem is particularly difficult. Because of the extremely local nature of housing markets, we do not know to what extent lower money incomes predominate in areas where housing costs are also systematically lower. It is also important to remember that the results represent averages, and that even within the categories examined there will in fact be substantial variation in income and housing cost increases.

### Have Downpayments Become More Burdensome?

Potential homebuyers must not only have incomes adequate to meet monthly payments; they must also be able to meet downpayment requirements. Downpayments for conventionally-financed home purchases also generally became more burdensome for first-time homebuyers during the period. Sales prices of both existing and new houses rose faster than median incomes, while the typical down-payment remained fairly even as a percentage of sales prices (about 25 percent). As a result, downpayments on median existing houses rose more than one-and-one-quarter times as fast as annual incomes, and on median new houses almost one-and-two-thirds times as fast. Repurchasers, on the other hand, had no difficulty meeting the downpayment for a different home, if their original house had shared in even a small part of the general increase in sales prices.

### Which Homeownership Costs Have Increased Most?

Breaking down the sources of increase in total homeownership costs for a first-time buyer, sales price increases played the largest role. While operating expenses (insurance, property taxes, maintenance and repairs, and heating and utilities) increased at faster rates than sales prices, sales price dominated because of its large proportion in total costs. Interest rates had less impact because they increased relatively slowly. No single sub-component of sales price accounted for a very substantial share of the total homeownership cost increase.

### Important Policy Criteria

In order to judge the usefulness of policy alternatives in dealing with housing affordability problems, the following criteria can be used:

- o What types of homeowners/homebuyers are assisted (first-time purchasers, repurchasers, non-movers)?
- o Does the alternative have substantial impact on housing costs?

- o Is the impact sustainable?
- o What is the income distribution of the people helped by the program?
- o What are the budget impacts for the federal government?
- o How is housing construction activity affected by the alternative?

These criteria are used to frame the analyses of program/budget alternatives and their general effects.

#### Program/Budget Alternatives and Their General Effects

Federal policy to deal with homeownership affordability can be broken into four major types of action:

- o Changes in macro-economic policy
- o Actions to limit increases in specific components of housing costs
- o Homeownership subsidies
- o Development of alternative mortgage instruments.

Obviously, macroeconomic policies that improved the rate of growth of incomes relative to the general price level would benefit all homebuyers.

To focus on limiting cost inflation of particular subcomponents of house purchase prices is less promising, both because no individual element has a high weight in total cost and because the federal government probably has only limited ability to control many of the costs. Some actions might be taken to help limit subcomponent cost increases to general inflation rates.

The federal government has more impact on mortgage interest rates. These offer a helpful but limited lever, since interest rates are not as greatly above historical levels as are other costs, and they cannot be continually moved lower if inflation continues to outstrip income growth.



Subsidizing homepurchasing is generally expensive, even just to return middle-income potential purchasers to 1970 levels of affordability. Two changes in subsidy programs might reduce subsidy cost. First, the eligible group might be narrowed to first-time homebuyers, since they in general are the group which has suffered most from decreases in affordability in recent years. Second, aid might be switched to buyers of existing housing (in contrast to present Section 235 and GNMA Tandem programs limited to new housing), which is in general cheaper than new housing. Of course, this latter approach does not meet other economic stimulus objectives.

It is important to realize that the relatively modest subsidies contained in major current homeownership assistance programs limit their use essentially to people of middle income and above. While providing deep subsidies to low- and moderate-income people may or may not be a federal objective, it should be noted that the shallow homeownership subsidies provided in current subsidy programs essentially trade off, in a constrained federal housing budget, against housing assistance (rental or homeownership) to those groups.

A potentially useful alternative approach for middle-income first-time homebuyers is to encourage the use of mortgages that begin with lower early payments that rise over time. This approach allows the buyer to take advantage of future growth in income (from inflation and possibly from improved earning power) while limiting federal government expenditures.

The following table summarizes the impacts of major policy types according to the suggested criteria. These impacts are explained in more detail in Chapter V.

SUMMARY OF POLICY IMPACTS

Types of Alternatives	Type of Home-owner Assisted	Impact on Housing Costs	Sustainability of Impact
Macroeconomic efforts to increase incomes relative to general price levels	All	Potentially substantial	High
Lowering mortgage interest rates	First-time buyers and repurchasers	Potentially substantial	Difficult to sustain, particularly if trying to offset continued rise in costs relative to incomes
Curbing increases in prices of other housing cost subcomponents	All, depending on which subcomponents	Very limited for any given subcomponent alone	Limited
Subsidies Section 235 GNMA Tandem	Purchasers of new homes, first-time or repurchasers	Modest, because subsidies not too deep	Limited in case of continuing price rise relative to income
Alternative subsidies targeted to first-time buyers and/or existing housing and/or lower-income people	Potentially limited to first-time purchasers and/or existing housing	Depends on subsidy level	Limited in case of continuing price rise relative to income
Graduated and deferred payment mortgages	All but non-movers, but could be limited to first-time buyers and/or existing homes	Moderate, because substantially lowered initial payments require rapid increase	Limited in case of continuing price rise relative to income

a/ Actual annual per unit cost for units reserved in 1976.

b/ Actual one-time cost per unit in 1976.

c/ Estimated first-year cost for program to return median income first-time purchaser of existing housing to 1970 affordability position as of 1975.

SUMMARY OF POLICY IMPACTS (continued)

Income Distribution of People Assisted	Effect on Housing Construction	Budget Impacts
All income groups, and perhaps particularly lower-income people	Significantly favorable	Depends on mechanisms used
Mainly middle- and upper-, since lower-income people cannot afford to become homeowners without deeper assistance	Significantly favorable	Depends on mechanisms used
All, depending on subcomponent	Limited because of limited cost impact	Depends on mechanisms used
Limited largely to middle- and upper-income	Favorable, but often substitutes for activity which would occur anyway	\$ 850 <u>a/</u> \$1,819 <u>b/</u>
Potentially including lower- and moderate-income if deeper subsidies	Limited, if directed away from new construction	\$ 635 <u>c/</u> or \$1,235 <u>d/</u>
Middle- and upper-income, and upwardly mobile moderate-income	Depends on targeting toward or away from new home purchasing	Deferred \$635 <u>e/</u>  Graduated: some tax expenditures and insurance costs

d/ Estimated first-year cost for program to move first-time purchaser at 40th percentile of income distribution to 1970 affordability for median income buyer, as of 1975.

e/ As in footnote c/, but note that in later years subsidies would be repaid

..... | | | | | .....

In recent years substantial concern has arisen about the decreasing ability of families in the United States to afford their own homes. Several current federal programs have been designed at least in part to assist the households in buying homes. But concern that it is becoming more difficult to afford a home has led to a number of proposals to ease home purchase, either directly or indirectly.

The budget impacts of these proposed measures could vary widely. Proposals directed toward macroeconomic conditions--increasing income growth and slowing the general rise in all prices, including housing prices--take many forms at various costs. For housing subsidy programs, costs per family differ substantially with who is served and how. It is difficult to estimate the numbers of eligible and likely participants under any given program, but such estimates are crucial in determining expected costs and desirable funding levels.

Furthermore, many of the programs generally envisioned are not entitlement programs. That is, not all eligible people are guaranteed program benefits, as they are under programs like the food stamp program. Therefore the Congress can directly control the programs' maximum budget levels, thereby choosing the number of families to assist.

To aid Congressional decisions about the level and type of support for homeownership, this paper:

- o Examines the affordability problem to see to what extent it exists and for whom, and
- o Evaluates several types of proposed solutions according to a number of criteria.

Whether assisting homeownership is an appropriate federal function at all is, of course, a critical policy question. Current policies do provide major encouragement to homeownership, presumably on grounds that homeownership furthers such values as family and neighborhood stability

and participation in a private-ownership economy. But homeownership is a form of private investment and consumption that policy-makers might not wish to encourage over other forms. This paper does not address the broader policy question of whether the federal government should play any role, since that is clearly a judgmental question largely not subject to analysis.

The changes in homeownership affordability from 1970 to 1975 are the subject of this analysis. Changes in affordability turn on changes in the relation between incomes and housing costs for the period under study.

There is no reasonably satisfactory measure of changes in homeownership costs for all homeowners as a single group. The patterns of housing costs for distinct categories of homeowners are quite different. The three key categories studied in this paper are:

- o Families buying a home (new or existing) for the first time during the period (first-time buyers).
- o Families already owning a home who move to another during the period (repurchasers).
- o Families already owning a home who remain in place during the period (non-movers).

The first-time buyer is confronted by the full spectrum of cost increases--changes in sales price, interest rate, property tax, hazard insurance, maintenance and repairs, and heating and utilities. The repurchaser, however, may well find any increase in house sales prices reflected in both the sales price of the present house and the price of the house to be purchased. The sales proceeds can obviously be applied to the purchase price. To the extent of the offset, the repurchasing family confronts increases only in the cost components other than purchase price (but including interest rate changes). The non-mover (i.e., the family staying in its present house) faces no change in purchase price and interest rate (and thus no change in mortgage payment) and is confronted only by increases in "operating" expenses (property taxes, hazard insurance, maintenance and repairs, and heating and utilities).

Any measure of the experience of all homeowners together would involve essentially a weighted average of the very different experience of homeowners in these

categories. 1/ No available data provide such a weighted average. 2/ Furthermore, from the standpoint of public

- 
- 1/ The situation is even more complicated than suggested in the preceding paragraph. For people who are already homeowners (repurchasers and non-movers), the rate of overall housing cost increase depends on when and at what price and interest rate they originally bought their house. For repurchasers, the change in value of their original house is an important cost change determinant.
- 2/ The homeownership component of the Consumer Price Index (CPI) does not provide such a weighted average. It is fairly close to the cost changes for first-time buyers purchasing and operating a mixture of new and existing homes. But it is not really satisfactory for measuring that mixed category either (which would be better analyzed separately for new and existing housing), because: (1) the initial weights established for different subcomponents are based in part on the experience of repurchasers; (2) heating and utilities are not included in the homeownership component, and the separate utilities series is for renters and homeowners combined; (3) measurements of property tax changes are based on a fixed set of houses with no adjustments for new construction; and (4) maintenance and repair costs are obtained from the costs for a very small set of particular goods and services and entered with weights established more than 10 years ago (as are all the subcomponents). Moreover, the lack of public reporting of several of the subcomponent series minimizes its usefulness for the analysis contained in this paper. Therefore, the CPI homeownership component is not used in this paper. Other data sources are used to trace cost changes for definable categories of homeowners, but no measure of cost changes for all homeowners together is available. The basic data used are: National Association of Realtors Existing Home Sales Series and Commerce Department Prices of New One-Family Houses Sold, for home purchase prices; Federal Home Loan Bank Board conventional mortgage rate series, for mortgage interest rates; and FHA characteristics for Section 203 homes, for operating expenses (property taxes, hazard insurance, maintenance and repairs, heating and utilities).



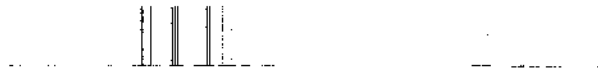
policy toward homeownership affordability, it is not very useful to measure the experience of all homeowners taken together when the experiences of distinct categories are known to be very different.

Chapter III of this paper therefore compares the separate cost experiences of the three key categories of homeowners with changes in incomes. Incomes used are those of the population at large or its age and income subgroups, rather than of particular homeowner categories, because our interest is in the general ability of families to enter and stay in the various categories rather than in the incomes of those who do.

Housing cost subcomponents (purchase price, interest rate, etc.) are also measured for the total set of houses in each case, rather than the set of houses actually being purchased or lived in by the particular homeowner categories, since the total set provides a more reliable measure of the actual changes that confront homeowners (and influences their housing choices and therefore the category in which they in fact end up).

Affordability change differences for the various homeowner categories arise not from differences in the basic data employed, but from differences in the set of housing cost subcomponents applicable to each group: changes in all costs for first-time buyers, in all costs but purchase price (in full or in part) for repurchasers, and in operating expenses only for non-movers.

Details of methodology are provided in the Appendix.



---

CHAPTER III    CHANGES IN HOMEOWNERSHIP AFFORDABILITY  
FOR CATEGORIES OF HOMEOWNERS

---

As stated above, each of three categories of homeowners--first-time buyers, repurchasers, and non-movers--faces a different set of cost increases, resulting in very different rates of change of overall costs. The experience of each of these groups is analyzed separately below. In each case, the focus is change in affordability between 1970 and 1975, as measured by the change in income compared to change in housing costs. The results are summarized in Table 9 at the end of this chapter.

It is important to note at the outset that the results are essentially averages. But we know that different categories of households--classified by such characteristics as geography, race, and sex of head of household--may have faced significantly different experiences. The geographical problem is particularly difficult. Because of the extremely local nature of housing markets, we do not know to what extent lower incomes predominate in areas where housing costs are also systematically lower. An effort is made to look at affordability for people with incomes lower than the median, but it is necessarily hampered by lack of knowledge about how available cheaper houses are in the areas where low-income people live. Also, even within the type-of-homebuyer categories examined here (first-time buyer, repurchaser, non-mover), there undoubtedly are wide variations in experience. Some effort is made to indicate within what bounds the stated average results will apply.

FIRST-TIME HOMEBUYERS

Approximately 50 percent of homebuyers in recent years are purchasing homes for the first time (about 2

million first-time buyers in 1974). <sup>1/</sup> As of 1974, nearly two-thirds (about 46 million) of U.S. households were homeowners already. This proportion has been steadily rising for 30 years. The first-time homebuyers come from the remaining one-third of existing households and from newly formed households. First-time purchasing is particularly common among the growing set of households in the 25-34 year age classification, comprising nearly half of first-time buyers (see Table 1).

TABLE 1. FIRST-TIME HOMEPURCHASERS BY AGE OF HOUSEHOLD HEAD, 1974

Age	18-24	25-34	35-44	45-64	65+
	15.3%	47.1%	19.3%	15.5%	2.9%

SOURCE: 1974 Annual Housing Survey, Part D, U.S. Bureau of the Census.

NOTE: Age figures for first-time purchaser household heads are available only for households with the same head before and after moving. Thus new households buying houses immediately after formation are not represented in this table. Such households comprise about one-fourth of total first-time buyers.

<sup>1/</sup> Based on numbers of renters and new households becoming homeowners, as estimated in the Annual Housing Survey. The estimate overstates first-time buyers to the extent that some renters becoming homeowners in a given year will have been homeowners at some earlier time.

Low-income households are much more likely not to be present homeowners (see Table 2), but their low incomes also make them less likely to be purchasers in a given year.

TABLE 2. HOMEOWNERSHIP BY INCOME OF HOUSEHOLDS, 1974

Income Group	Total Households (in 1,000s)	Percent Owners	Percent Renters
\$ 0- 4,999	15,653	48%	52%
5,000- 9,999	16,875	55	45
10,000-14,999	15,878	68	32
15,000-24,999	15,519	79	21
25,000 or more	<u>6,907</u>	<u>87</u>	<u>13</u>
TOTAL	70,832	65%	35%
Median income	\$10,831	\$12,800	\$7,700

SOURCE: Annual Housing Survey, 1974.

Actual and potential first-time buyer families have experienced fairly substantial decreases in their ability to afford homes, as measured by the relationship of changes in annual housing costs to changes in incomes. <sup>2/</sup> Consider first the first-time buyer of an existing home. Assume the buyer family considers purchasing the median-priced existing home in each of the years 1970 to 1975,

<sup>2/</sup> Incomes of families, rather than of all households (including those made up of single or unrelated individuals), are the focus here because families are the likely homebuying group.

and that its income follows the growth path of national median family income. The annual housing cost of supporting that home (mortgage payment and operating expenses including utilities) increased from about \$2,650 in 1970 to about \$4,320 in 1975. That amounted to a 63.0 percent increase for the whole period, for an annual rate of 10.3 percent (see Table 3). <sup>3/</sup> This was substantially faster than the increase in median income over the same period, 39.0 percent or a 6.8 percent annual rate. And the substantially faster rise of cost than incomes occurred in each of the last four years.

TABLE 3. HOUSING COSTS AND COST CHANGES FOR A FIRST-TIME HOMEBUYER OF AN EXISTING HOME IN EACH YEAR 1970-1975

	Annual Housing Cost	Monthly Housing Cost	Percent Change
1970	\$2,648	\$221	70-71 5.9%
1971	2,810	234	71-72 9.4
1972	3,071	256	72-73 11.7
1973	3,432	286	73-74 14.3
1974	3,918	327	74-75 10.2
1975	4,317	360	70-75 63.0%

SOURCES: Purchase price, National Association of Realtors Existing Home Sales Series.

Mortgage interest rate, Federal Home Loan Bank Board effective interest rate on conventional loans series in FHLBB Journal.

Operating expenses, from characteristics of FHA Section 203 home sales in HUD Statistical Yearbook.

<sup>3/</sup> The annual rates are compound rates of growth, so that the 5-year rates will not be simple multiples of annual rates.

Great attention has traditionally been focused on the ability of families, including first-time buyers, to purchase new homes. This ability is important in terms of construction industry activity, its contribution to macroeconomic conditions, and its contribution to increasing and improving the housing stock. It is far less clear that the government should be concerned whether first-time homebuyers can afford to purchase new houses in particular. The data for changes in their affordability are nonetheless provided here for comparison. Construction costs of new houses (though not necessarily the total of all cost components) are probably most important to first-time buyer affordability in terms of their impact on purchase prices for existing housing. New house prices help to set a limit on prices of existing houses, though exact relationships between the prices are difficult to establish.

New-house total costs to first-time buyers have risen substantially faster than costs of existing housing, and about twice as fast as median incomes in the past five years. Annual costs rose from about \$2,600 in 1970 to about \$4,750 in 1975, an increase of 82.4 percent for an annual rate of 12.8 percent (see Table 4). The ability of first-time buyers to afford median new housing thus declined very substantially in the period. Note further that the annual cost for median new housing is \$435 greater than for median existing housing. This will also have a substantial impact on how affordable the housing is to people of various incomes.

TABLE 4. HOUSING COSTS AND COST CHANGES FOR A FIRST-TIME HOMEBUYER OF A MEDIAN PRICE NEW HOME

	Annual Housing Cost	Monthly Housing Cost	Percent Change
1970	\$2,604	\$217	70-71 6.0%
1971	2,761	230	71-72 11.3
1972	3,072	256	72-73 19.2
1973	3,662	305	73-74 21.2
1974	4,437	370	74-75 7.1
1975	4,751	396	70-75 82.4%

SOURCE: Purchase price, in Characteristics of New One-Family Homes Sold, Construction Report C-25, Department of Commerce. Other costs, see Table 3.

The median-priced new house seems to have increased in quality over the five-year period, since its sales price increased somewhat more rapidly than that of the Commerce Department's fixed-quality house 4/ (67.9 percent versus 48 percent). The changes in all housing costs for first-time buyers of the fixed-quality new house 5/

4/ Fixed at the average quality of houses built in 1967.

5/ The median price existing house should not have changed too much in quality over the five-year period, since new construction, demolition, repair, and deterioration would not have great impact on the quality of the housing stock as a whole in such a relatively short period. Of course, there may be some additional change in observed sales price because of some change in the set of houses being sold for whatever reason. But no data are available to represent prices of existing housing that is unchanged in quality, so that no separate consideration of this possible complication was possible.



are presented in Table 5a. The rate of cost increase is somewhat slower than for the median new house (59.8 percent versus 82.4 percent). But that rate of increase is still very substantially greater than the growth of median incomes in the same period, so that first-time buyers of new houses again are in a worse "affordability" position in 1975 than in 1970. Also, the price of this fixed-quality new house is even higher than that of the median new house (see Table 5b). As a result, purchasing this new house in 1975 costs over \$800 more per year than purchasing the median price existing house in the same year (\$5,135 vs. \$4,317).

TABLE 5a. COST CHANGES FOR A FIRST-TIME HOMEBUYER OF A FIXED-QUALITY NEW HOME

	Annual Housing Cost	Monthly Housing Cost	Percent Change	
1970	\$3,213	\$268	70-71	5.1%
1971	3,378	282	71-72	6.2
1972	3,589	299	72-73	11.9
1973	4,016	335	73-74	16.0
1974	4,659	388	74-75	10.2
1975	5,135	428	70-75	59.8%

TABLE 5b. CHANGES IN SALES PRICES OF NEW HOMES

	Median-Price New House	Fixed-Quality New House
1970	\$23,400	\$28,900
1975	39,300	42,900
Percent Change	67.9%	48.4%

SOURCE: Purchase price, Construction Report C-27, Department of Commerce. Other costs, see Table 3.

|||

Focusing on income of age groups concentrated in the first-time buyer class, we find the same pattern of decline in affordability of existing and new houses for first-time buyers. Median incomes of families with 25-34 year old heads of household rose at almost precisely the same rate as overall family median income. Incomes for this age group rose from \$9,853 to \$13,659, a 38.6 percent increase, matching overall median income both in level and rate of change to a remarkably high degree. Thus first-time buyers in general and in this particular age concentration both lost ground in their ability to become homeowners.

Nor is the pattern of affordability for first-time buyers substantially changed when families in various income categories are examined separately. Consider the top level of income for each quintile of families (i.e., the income below which 20 percent, 40 percent, 60 percent, and 80 percent of U.S. families' earnings lie). Each of the quintile income cut-offs rose at very nearly the same rate as the median income (see Table 6), which was the basis for the comparisons above. Thus first-time purchasers in all income groups suffered similar declines in homeownership affordability. 6/

---

6/ This conclusion assumes that the rate of increase in costs of first-time homeownership is the same for houses of different qualities (and locations) which people of different incomes tend to buy. Good evidence is not readily available on this assumption. But the large difference between income increases and median cost increases suggests that the decline in affordability would be observed even if fairly significant differences existed in rates of cost increase.

TABLE 6. CHANGES IN FAMILY INCOME QUINTILES, 1970-1975

	1st Quintile	2nd Quintile	3rd Quintile	4th Quintile	Median
1970	\$5,100	\$8,320	\$11,299	\$15,531	\$9,867
1975	6,914	11,465	16,000	22,037	13,719
Percent Change	35.6%	37.8%	41.0%	41.9%	39.0%

SOURCE: Incomes of Families and Persons in the United States, Department of Commerce.

NOTE: For use in other calculations, median family incomes were \$10,285 in 1971, \$11,116 in 1972, and \$12,051 in 1973.

Furthermore, the affordability decline is not significantly affected by considering incomes net of income taxes. It has been suggested that increased value of deductions allowed homeowners for mortgage interest and property taxes might moderate increases in housing costs relative to incomes. Deduction values for buyers of median houses have risen from 1970 to 1975, because the amount of interest and property taxes rose, and because higher marginal tax rates on increased incomes meant greater tax savings per dollar of deduction. The relevant measure of affordability, however, is change in net of tax income relative to change in housing costs. The same increase in tax rates that raised the value of deductions also works generally to raise taxes and lower net incomes. The result is that for a median-income family of four that bought a median-priced existing house, net of tax income (given the more valuable deductions) rose at very nearly the same rate as gross income. Thus, for the first-time buyers, net incomes also rose substantially less quickly than housing costs.

It is well worth noting, however, that at least through 1974 (the latest available data), the proportion of all households (of two or more persons) owning their own homes continued to rise (from 67 percent in 1970 to 70 percent in 1974), as did the homeowner proportion of households with 25-34 year old heads (from 56.9 percent in 1970 to 63.7 percent 7/ in 1974). Apparently the affordability problem for the first-time purchaser was not so great by 1974 to disturb this long-term trend. But the situation could worsen with continued cost increases.

#### BUYERS OF HOMES WHO ARE ALREADY HOMEOWNERS

Many purchasers of homes are already homeowners (about 50 percent in 1973 and 1974). This is not surprising, since nearly two-thirds of current households were homeowners in 1974, and about 2.9 million homeowner households moved (to another house or a rental unit) in the year 1973-1974.

Changes in housing costs for families already owning homes should be thought of as including increases in all cost components, including purchase price, but netting out year-to-year increases in the price they can obtain for their present house. That increase, after all, presumably results from the same forces which increase the price of the next house, 8/ is obtainable on sale, and could be (though it may not necessarily be) applied against the purchase price of their next house if desired.

---

7/ Age-disaggregated data in the Annual Housing Survey are available only for households with two or more persons and both parents present, so that these data are limited to that category of households.

8/ The windfall nature of this increase, comparable to the windfall nature of price increase of the next house, argues for the simple offset without including an opportunity cost of the additional equity.

Consider this example. Assume that a homeowners family owns a median-priced existing house in 1970. The house increases in price at the same pace as the general median-priced house over the period 1970-1975. The household considers purchasing another median-priced existing house each year. The increase in equity (value of home above outstanding mortgage amount) is just enough to offset increased purchase prices (neglecting transaction costs and leaving mortgage amount fixed), so that cost increases between possible years of purchase derive only from changes in interest rates and from operating expenses. 9/ The resulting rate of change in total costs for the repurchaser is much slower than for first-time buyers.

If the repurchasing family above buys in 1975, it faces only a total 27.3 percent increase in homeownership cost above 1970 costs. Annual costs increase from about \$2,650 to about \$3,370, an annual rate of increase of about 4.9 percent (see Table 7). This increase is significantly slower than the rate of growth of median income--39.0 percent for the period, 6.8 percent annually.

Interest rates in 1970 were at a cyclical peak and are therefore more crucial here because changes in purchase price net out. Therefore, it is worth looking at the potential repurchaser's experience from 1971 to 1975 only. In that period, costs increased more slowly than median incomes--24.9 percent compared to 33.4 percent. Even for the high-inflation, low-real-growth period of 1973-1975, increases in costs for the repurchaser were outstripped by increases in median incomes.

---

9/ If the family wishes to buy a more expensive house than its present one, and that house is increasing in cost at the same rate, then some cost increase will result from net purchase price growth. The same is true for a family wishing to buy a new house whose price is increasing at a faster rate than that of its existing house.

TABLE 7. HOUSING COSTS AND COST CHANGES FOR A SECOND-TIME HOMEBUYER OF AN EXISTING HOME IN EACH YEAR 1970-1975

	Annual Housing Cost	Monthly Housing Cost	Percent Change	
1970	\$2,648	\$221	70-71	1.6%
1971	2,691	225	71-72	5.0
1972	2,826	236	72-73	6.8
1973	3,019	252	73-74	7.2
1974	3,240	270	74-75	4.1
1975	3,371	281	70-75	27.3%

SOURCE: CBO calculations based on assumptions specified in text and data as in Table 3. See Appendix for further detail on methodology.

The repurchaser's present house may rise in value less rapidly than the intended next house, even if it begins at the same value. But the margin of income growth is large enough that the present house need increase in value only about 75 percent as fast as the next house in order for incomes to rise as fast as housing costs. Even families wanting to move from a median existing house to a median new house face only a moderately higher increase in cost than in income (50 percent versus 39 percent).

Can repurchasers move to better homes? It is clear from the above paragraph that some improvement in house quality is possible. To consider the question more directly, consider the following example. Suppose again that the household in 1970 owns a median-price existing house, that it rises in value to 1975 at the same rate as the general existing median house, and that the repurchaser applies the equity increase to its next house purchase. Suppose also that the family's income

increases at the same rate as the median income (though it need not in fact have the median level income).

That family could, with the same share of its income applied to housing in 1975 as in 1970, afford to buy a house greater in value than the median by 7 percent (about \$2,300)--an annual rate of growth of about 1.25 percent in the relation of quality of the affordable second house to the original home. And this upward step would be available to homeowners no more upwardly mobile in income than the general population (traditionally, movement to better homes has been associated with a family's improved position in the income spectrum), even though real incomes in terms of all prices (housing and non-housing) remained generally constant. However, the rate of improvement in housing quality affordable was slower for 1970-1975 than for 1966-1970. The rise in median income would have allowed a 1966 purchaser of the median house to buy a house about 16 percent more valuable than the median four years later, an annual rate of about 3.7 percent.

These results do not change for different income categories. As indicated above, incomes of various income groups rose at essentially the same rate during the period in question, so that the relation of changes in incomes to changes in homeownership costs is the same across incomes. 10/

Thus for the typical household already owning a home, the last five years have not been harmful in terms of affording a house comparable to their present one. People may, of course, have been disappointed about their limited ability to "move up" to a better home compared to their past experience. But they fared better in terms of homeownership than for all goods and services in general, since median real income remained constant over the five year period.

---

10/ Given again the assumption that the costs associated with different qualities of houses did not vary appreciably, with again a substantial margin for error.

### HOMEOWNERS WHO DO NOT MOVE DURING THE PERIOD

Families that already owned homes at the start of the 1970-1975 period and did not move faced no increase in mortgage payments (due to changes in either principal or interest). Cost increases confronting non-movers arose only from increased operating costs (insurance, property taxes, maintenance and repairs, and heating and utilities). As a result, the rate of increase in their overall housing cost was lower than for movers.

In particular, homeownership costs for non-movers who bought median-priced houses in 1970 increased only 22.6 percent over the next five years, for an annual rate of 4.2 percent (see Table 8). This was well below increases in median income.

TABLE 8. HOUSING COSTS AND COST INCREASES FOR NON-MOVER HOMEOWNERS, 1970-1975

	Annual Housing Cost	Monthly Housing Cost	Percent Change	
1970	\$2,652	\$221	70-71	5.0%
1971	2,784	232	71-72	5.6
1972	2,940	245	72-73	4.7
1973	3,072	256	73-74	2.6
1974	3,144	262	74-75	3.4
1975	3,252	271	70-75	22.6%

SOURCE: See Table 3. Because of imperfections in the FHA operating cost data used, another estimate was made for comparison using the 1970 FHA figures as a base and CPI component inflators. The result was still slower increases in housing costs, 15.6 percent for the five-year period.



Of course, homeowners may have purchased their homes well before 1970, so that their mortgage payments are lower than those used in Table 8 and increases in operating costs thus have more impact on total housing costs. However, a non-mover making payments on a mortgage initially as small as \$7,800 at only 5 percent interest will still have had housing costs rising no faster than income in the past five years, provided again that the family's income rose as fast as median income. This typical non-mover is not decreasing and is probably increasing in ability to afford the actual costs of its current home.

Once again, non-movers in various income categories generally gained ground in affordability in about the same fashion as people following the path of median income, since income increased at similar rates for all categories.

Particular concern has often been expressed that elderly homeowners may have been forced out of their homes by rising costs. This does not seem to be the prevailing pattern for 1970-1975. Income of families with heads over 65 rose 59.4 percent from 1970 to 1975, an annual rate of 9.8 percent. Income of unrelated individuals over 65 did equally well. Thus income increases for the elderly far outstripped non-mover homeownership cost increases for recent buyers. Indeed, rates of income increase for the elderly kept even with non-mover homeownership cost increases even in cases where no mortgage payments were being made at all. 11/

---

11/ It is perhaps the case that the income increase for people already elderly in 1970 is overstated by the 1975 figures, since the latter figures reflect past higher incomes of people becoming elderly during the five-year period. Truly satisfactory data to test this possibility are not available. Rough-cut efforts suggest this is not a substantial effect--particularly not large enough to reverse the direction of affordability change reported above, because of the wide margin between income growth and homeownership cost growth for elderly non-movers. The direction might be reversed for elderly people with little or no mortgage payment whose incomes rise significantly less rapidly than those of the elderly population in general.

Thus non-movers overall and in particular groups generally gained ground in homeownership affordability as measured by growth in income versus growth in cost. No doubt some owners grew more "housepoor" over time, but that was certainly not the general pattern.

Table 9 summarizes the results for rates of homeownership cost increase for different categories of homeowners in relation to increases in median income and general price levels.

TABLE 9. PERCENT CHANGES IN HOUSING COSTS, INCOMES, AND GENERAL CONSUMER PRICES, 1970-1975

	Increases in Housing Costs							
	First-Time Buyers						Median Family Income	CPI
	Of Existing Housing	Of New Housing (not controlled for quality)	Of New Housing (controlled for quality)	Repurchasers (assuming buying similar house)	Non-movers			
1970-1971	5.9	6.0	5.1	1.6	5.0	4.2	4.3	
1971-1972	9.4	11.3	6.2	5.0	5.6	8.1	3.3	
1972-1973	11.7	19.2	11.9	6.8	4.7	8.4	6.2	
1973-1974	14.3	21.2	16.0	7.2	2.6	6.5	11.0	
1974-1975	10.2	7.1	10.2	4.1	3.4	6.9	9.1	
1970-1975	63.0	82.4	59.8	27.3	22.8	39.0	38.6	

SOURCE: As in previous tables.

NOTE: 1970-1975 percent changes are not the sums of annual percent changes, since the compounding of annual changes produces the five-year result.

Another key element in homeownership affordability is the ability of potential homebuyers to make necessary downpayments. Families able to meet monthly payments may nonetheless not have accumulated sufficient assets to meet downpayment requirements. Downpayments on conventional mortgages (those not FHA-insured or VA-guaranteed) have averaged around 25 percent of purchase price during the 1970-1975 period for both new and existing housing, the percentage rising slightly over the five years.

Median house prices have risen faster than income (see Table 10); therefore, downpayments have risen relative to income. The typical downpayment (assumed to be 25 percent of purchase price) has risen from the equivalent of 58.4 percent of yearly median family income to 64.4 percent for median existing houses, from 59.3 percent to 71.6 percent for median newly-built homes, and from 73.2 percent to 78.2 percent for the 1967 average-quality new house.

The effects of such changes, which are quite moderate for existing and fixed-quality new houses and substantially larger for median new, depend again on the category of homeowner in question.

In general, first-time homebuyers are the families that actually face the growth in downpayment relative to income that Table 10 shows. Assuming they have little investment in other assets that might appreciate with general inflation, they are confronted by a need to save a larger portion of their annual income in order to accumulate downpayments, or to wait longer. Indeed, a median-income potential buyer family would have had to save about 6 percent of gross income during 1975 simply to avoid moving further from its downpayment goal. Increased saving during the 1970-1975 period would have required some reduction in real consumption (other than housing for such a family) since real median income remained essentially constant.

TABLE 10. HOUSE PRICES, DOWNPAYMENTS, AND RELATION OF  
DOWNPAYMENTS TO MEDIAN INCOME, 1970-1975

	House Prices			Downpayments			Downpayment as a Percent of Median Income		
	Existing	New (Median)	New (Corrected for quality changes to 1967 average quality)	Existing	New (Median)	New (Corrected for quality changes to 1967 average quality)	Existing	New (Median)	New (Corrected for quality changes to 1967 average quality)
1970	\$23,030	\$23,400	\$28,900	\$5,751	\$5,850	\$7,225	58.4	59.3	73.2
1971	24,810	25,200	30,300	6,203	6,300	7,575	60.3	61.3	73.7
1972	26,710	27,600	32,200	6,678	6,900	8,050	60.1	62.1	72.4
1973	28,920	32,500	35,600	7,230	8,125	8,900	60.0	67.4	73.9
1974	32,040	35,900	38,900	8,010	8,975	9,725	62.4	69.6	75.8
1975	35,330	39,300	42,900	8,833	9,825	10,725	64.4	71.6	78.2
Change 1970- 1975	53.6%	67.9%	48.4%	53.6%	67.9%	48.4%			

SOURCE: CBO calculations based on purchase price data as in Tables 3, 4, 5a and 5b.

Families already owning a home, however, should not experience difficulty in making downpayments when they move--provided that their present homes are sharing in the general increase in house prices. Increase in value of their present houses provides essentially dollar-for-dollar increase in their equity upon sale. At the same time, an increase in price in the homes they intend to purchase probably involves no more than a twenty-five cent increase in downpayment for each dollar (assuming 25 percent downpayments). Thus, for example, if both houses started at the same 1970 value, a family's present house need increase in value by only 25 percent of the increase in that of the desired house (existing house prices increased 53.6 percent 1970-1975) in order to leave an adequate equity for downpayment. Any faster rate could provide downpayment for a more valuable next home.

Non-movers are of course unaffected by downpayment problems, and they benefit in the same way as second-time buyers if they move in the future.

FHA-insured loans do provide mortgage financing with much lower downpayment requirements than conventional financing. Current downpayment requirements in the basic, unsubsidized FHA single-family insurance program 203(b) are only 3 percent for houses valued at \$25,000 or less, plus 10 percent of value in excess of \$25,000 and 20 percent of value in excess of \$35,000. Thus the median-priced existing house sold in 1975 would have required a downpayment of only \$1,816 and the median-priced new house in 1975 a downpayment of \$2,610 under FHA financing. <sup>1/</sup> These are only 13.2 percent and 19.0 percent of median yearly income, far easier to accumulate than the conventional financing figures. But use of FHA insurance has dropped substantially in recent years for a variety of reasons, including ceilings on mortgage amounts, application processing delays, and

---

<sup>1/</sup> These are just slightly lower, as a percentage of purchase price, than actual average FHA experience in the past.

restrictions on maximum interest to levels below prevailing market rates. The interest restrictions result in lenders demanding "points"--which are essentially pre-paid interest enough to compensate for the lower rate--in order to make FHA loans. If the loan is made at all, these points are generally paid by the buyer 2/ since the seller would otherwise prefer sale to a conventionally financed customer. The result is in effect an additional downpayment.

---

2/ FHA regulations prohibit payment of points by buyers, but they are in fact in general passed on through higher prices to FHA-financed buyers.

To understand what might be done to slow the growth of homeownership costs, it is useful to examine increases in individual cost components. The analysis here will focus on the costs of buying and operating a new home from the point of view of first-time buyers, both because that allows looking at the full array of components and because new home costs are an important determinant of costs of existing homes. Of course, people who already own homes (repurchasers and non-movers) face increases in only some of the cost components, and for them various contributors to cost growth will have far different weighting. But, since such families on average have not suffered increases in costs relative to incomes, the components analysis is better directed toward the first-time buyer.

Tables 11a and 11b present the five-year levels of and changes in the first layer of cost components for median-price new houses and for 1967 average-quality new houses respectively. Results are similar for the two house groups. Mortgage interest rates increased very little over the period, even if the calculations were for 1971-1975 (instead of 1970-1975) to avoid the 1970 cyclical peak in interest rates. Sales prices increased far more rapidly, but less than the rate for each of the elements of operating expenses.

What are the components' proportional contributions to the total cost increase over the period? Components that account for a large portion of total initial cost can account for major shares of cost increase, even though they increase at less rapid rates than other items. This is particularly true of sales price and mortgage interest.

For the period 1970-1975, sales price increases are by far the largest contributor to total cost increase, accounting for over 50 percent for median- and fixed-quality houses. Property taxes and heating utilities were the next largest contributors, at about 15 percent and 11 to 14 percent respectively (see Tables 12a and 12b).

TABLE 11a. CHANGES IN COMPONENTS OF OVERALL HOMEOWNERSHIP COSTS,  
MEDIAN-PRICE NEW HOMES, 1970-1975

	Total Monthly Cost	Monthly Mortgage Payment	Mortgage Payment as a Per- cent of Total Hous- ing Cost	Sales Price	Inter- est Rate	Insur- ance	Prop- erty Taxes	Main- tenance and Repairs	Heat and Util- ities
1970	\$217	\$141	65%	\$23,400	8.45%	\$5.65	\$31.76	\$12.15	\$26.74
1971	230	143	62	25,200	7.74	10.09	37.89	13.20	26.27
1972	256	154	60	27,600	7.60	6.50	47.45	15.88	31.87
1973	305	187	61	32,500	7.95	7.84	50.63	20.82	38.54
1974	370	224	61	35,900	8.92	13.12	62.80	24.00	45.35
1975	396	248	63	39,300	9.01	10.68	64.98	26.45	46.21
Change 1970- 1975	82.4%	75.9%		67.9%	6.6%	89.0%	104.6%	117.7%	72.8%

SOURCE: See Table 4.

TABLE 11b. CHANGES IN COMPONENTS OF OVERALL HOMEOWNERSHIP COSTS,  
FIXED-QUALITY NEW HOMES, 1970-1975

	Total Monthly Cost	Monthly Mortgage Payment	Mortgage Payment as a Per- cent of Total Hous- ing Cost	Sales Price	Inter- est Rate	Insur- ance	Prop- erty Taxes	Main- tenance and Repairs	Heat and Util- ities
1970	\$268	\$173	64.6%	\$28,900	8.45%	\$6.96	\$43.25	\$14.89	\$30.05
1971	282	172	61.0	30,300	7.74	13.06	50.25	15.86	31.41
1972	299	180	60.2	32,200	7.60	7.79	56.42	18.64	36.28
1973	335	205	61.2	35,600	7.95	12.03	52.62	21.86	43.72
1974	388	243	62.6	38,900	8.92	13.12	62.80	24.00	45.35
1975	428	268	62.6	42,900	9.01	11.43	73.59	29.47	45.23
Change 1970- 1975	59.8%	54.9%		48.4%	6.6%	64.2%	70.2%	97.9%	50.5%

SOURCE: CBO computation based on data as in Tables 5a and 5b.



Looking at 1971-1975 (again to avoid peak cyclical interest rates), sales price's contribution is still by far the largest, with mortgage interest now second at about 15 to 17 percent and property taxes close behind. Heating and utilities and maintenance and repair follow.

TABLE 12a. PERCENT CONTRIBUTIONS OF HOMEOWNERSHIP COST COMPONENTS TO TOTAL COST INCREASES, MEDIAN-PRICE NEW HOMES

	Mortgage		Insurance	Property Taxes	Maintenance and Heat and Utilities	
	Sales Price	Interest Rate			Repair	Utilities
1970-1975	55.3	6.2	1.0	15.2	8.1	13.9
1971-1975	47.8	15.1	1.3	14.2	7.8	14.1

SOURCE: CBO computations based on data as in Table 4.

TABLE 12b. PERCENT CONTRIBUTIONS OF HOMEOWNERSHIP COST COMPONENTS TO TOTAL COST INCREASES, FIXED-QUALITY NEW HOMES

	Mortgage		Insurance	Property Taxes	Maintenance and Heat and Utilities	
	Sales Price	Interest Rate			Repair	Utilities
1970-1975	55.2	6.3	1.3	15.3	10.0	11.1
1971-1975	47.9	17.1	-.5	16.0	9.3	9.5

SOURCE: CBO computations based on data as in Tables 5a and 5b.

Because sales price's contribution is so much more significant than the others, it is worth looking at its subcomponents. Unfortunately, there are data deficiencies for some subcomponents. Probably the best breakdown is that of the National Association of Homebuilders for 1970-1974 (updating has been discontinued because of data problems, particularly for land and profit-and-overhead). The data are provided in Tables 13a and 13b.

TABLE 13a. CHANGES IN SHARE OF MAJOR COST ITEMS FOR A TYPICAL SINGLE-FAMILY HOUSE

	Fourth Quarter 1970		Fourth Quarter 1974		Percent Change 1970-1974
	Cost	Percent Distribution	Cost	Percent Distribution	
1. Hard Cost*	\$13,188	54.3	\$18,040	48.4	36.8
Labor	(4,198)	(17.3)	( 5,820)	(15.6)	(38.6)
Material	(8,990)	(37.0)	(12,220)	(32.8)	(35.9)
2. Land	4,925	20.2	7,958	21.3	61.6
3. Financing	1,580	6.5	3,917	10.5	147.9
4. Overhead & Profit	2,940	12.1	4,513	12.1	53.5
5. Other Cost	1,667	6.9	2,872	7.7	72.3
Sales Price	\$24,300	100.0	\$37,300	100.0	53.5

\*See Table 13b for hard cost breakdown.

SOURCE:

- Line 1: Hard cost derived from major cost items in NAHB's Construction Components Cost Data in fourth quarter 1970 and fourth quarter 1974. These hard costs reflect a tract-built home of the type associated with FHA/VA construction. Hard cost data were adjusted to the median price of all homes sold as published by the Bureau of the Census, U.S. Department of Commerce, in New One-Family Homes Sold and For Sale, Series C-25. The Census Bureau's fourth quarter 1970 median sales price was adjusted upward to be in line with hard cost data for that period. Detailed hard cost data are included in Table 12b. Labor and Materials based on a study from the Bureau of Labor Statistics, U.S. Department of Labor, entitled Labor and Material Requirements for Construction of Private Single-Family Houses, 1972, Bulletin 1755.
- Line 2: Land cost is based on Census Bureau data published in Series C-25. However, fourth quarter 1974 land cost was adjusted upward by using FHA 203(b) cost per square foot data from the Division of Research and Statistics, Housing Production and Mortgage Credit-FHA, U.S. Department of Housing and Urban Development, FHA Trends of Home Mortgage Characteristics; data from NAHB's Builders Economic Council Surveys; and unpublished land cost data from the NAHB Home Owners Warranty Program.
- Line 3: Financing cost was based on the prevailing cost of financing at given periods, and reflects the higher cost of construction money rather than the cost of end mortgages.
- Line 4: Overhead and profit were derived from what FHA typically allows in individual cities, and from Horwarth and Horwarth, Builders Second Cost of Doing Business (NAHB, 1975).
- Line 5: Other cost includes the cost of marketing, servicing, and other incidental and indirect costs.

TABLE 13b. HARD COST AVERAGE CONSTRUCTION COSTS FOR SINGLE-FAMILY DETACHED HOUSING AND PERCENT DISTRIBUTION

	Fourth Quarter 1970		Fourth Quarter 1974		Percent Change 1970-1974
	Cost	Percent Distri- bution	Cost	Percent Distri- bution	
Excavation	\$ 185.84	1.4	\$ 248.43	1.4	33.7
Masonry	596.47	4.5	1,157.68	6.4	94.1
Concrete	911.80	6.9	1,446.35	8.0	58.6
Lumber	2,035.59	15.4	3,056.00	16.9	50.1
Hardwood Flooring	495.80	3.8	753.06	4.2	51.9
Millwork	1,381.29	10.5	1,838.26	10.2	33.1
Carpentry Labor	1,406.75	10.7	1,837.05	10.2	30.1
Roofing	414.31	3.1	456.45	2.5	10.2
Gutters	136.98	1.0	127.20	.7	-7.1
Lath, Plaster & Drywall	969.28	7.3	1,055.02	5.9	8.8
Tilework	259.42	2.0	313.60	1.7	20.9
Floor Covering	535.16	4.1	605.14	3.4	13.1
Electric Wiring	415.99	3.2	658.13	3.7	58.2
Lighting Fixtures	86.42	.7	167.72	.9	94.1
Plumbing	1,281.45	9.7	1,558.96	8.7	21.7
Heating	652.20	4.9	870.69	4.8	33.5
Painting	662.29	5.0	743.37	4.1	12.2
Insulation	202.38	1.5	285.05	1.6	40.8
Hardware	121.69	.9	252.53	1.4	107.5
Appliances	204.30	1.5	241.61	1.3	18.3
Incidental Cost	233.35	1.8	367.80	2.0	57.6
<b>Total Cost</b>	<b>\$13,188.75</b>	<b>100.0</b>	<b>\$18,040.10</b>	<b>100.0</b>	<b>36.8</b>

SOURCE: National Association of Home Builders, Construction Components Cost Data.

The largest subcomponents are material, land, and labor in that order. All rose in cost faster than median income or the Consumer Price Index in that four-year period. However, none of these individually has a very great effect on housing costs. Suppose, for example, that land prices held steady for the whole 1970-1974 period. A mortgage for a first-time buyer of a new home would have been reduced by only \$240 a year out of \$4,415. Thus, the proportion of decrease is only 5.4 percent for a complete elimination of increases in land cost for four years.

The comparable effect of holding all labor costs fixed is about half as large. And the effect of fixing lumber costs--lumber being the largest single component of hard cost and of materials--at 1975 levels is only about one-third as large. The second largest single impact is actually from construction financing costs, which have moderated since 1974. The problem then is the inflation of all the separate costs, rather than the unique escalation of one or a few costs.

---

CHAPTER VI THE POTENTIAL OF FEDERAL ACTION TO IMPROVE  
AFFORDABILITY

---

AFFORDABILITY STANDARDS

It is necessary for discussion to define a home-ownership-affordability standard toward which federal action might be directed, but any such standard should be viewed with caution. An often used rule of thumb has been that housing should cost 25 percent of current annual income (for homeowners and renters), but such a single standard has many shortcomings. For example, the remaining 75 percent of income clearly provides for very different levels of material well-being for people of different income levels. Furthermore, individuals make quite different incomes at different stages in life, and they may well expect to (and do) pay higher percentages for housing during their first years as independent households and again in retirement years.

For discussion purposes here, we have selected a nearly equally arbitrary standard: the ratio of (a) cost paid by the median first-time buyer for the median house sold in 1970 to (b) median 1970 family income. This figure was just under 27 percent for both new and existing homes. 1/ The prime reason for the choice is that this paper's analysis is directed toward the perceived problem of decline in homeownership affordability during the first five years of the 1970s. The problem, when defined as change in affordability for the worse, has been found to be confined primarily to first-time buyers (plus those lagging behind the general population in

---

1/ The typical buyer of the median-priced house may have income greater than the median. Still, our standard is close to the traditional rule of thumb. Probably more important, it serves largely as a base from which to consider change, rather than as an affordability "cut-off," so that it provides a useful approximation for non-median income and housing price cases in which rates of change have been similar to that of the medians.

income growth or increase in home value). And the concern for losses in recent years suggests using 1970 as an initial base. We shall consider the mechanisms and costs of returning homebuyer families to that 1970 standard.

As a result of cost increases exceeding income growth, potential first-time purchasers of median income have seen the share of their income required to buy and operate the median existing house rise from 26.85 percent to 31.45 percent from 1970 to 1975. The comparable rise for median new homes is from 26.39 percent to 34.63 percent. These increases are substantial enough to make the difference in some cases between home affordability and non-affordability, though there is a wide distribution of house prices below the median (particularly for existing houses) that may well still be in range. The distribution question is extremely difficult to address because of geographical differences in both prices and incomes.

For second-time purchasers (originally purchasing in 1970), the annual cost-income ratio declined from 26.85 percent to 24.58 percent, and for non-movers (also originally purchasing in 1970) the decline was to 23.70 percent.

The affordability problem for people with lower than median incomes is more acute. A family in the 40th percentile of incomes (about \$11,465 in 1975) already needed about 30 percent of income for housing to be a first-time purchaser of the median existing house 2/

---

2/ As indicated previously, it is extremely difficult to know what price of house to compare to incomes of lower-income people. Public policy certainly might be to encourage and assist lower-income people to purchase a house at less than the median price. A key question is whether houses much cheaper than that (and still in satisfactory condition) are available in the geographical areas in which particular sets of lower-income people live. Clearly in some cases the answer will be yes (and indeed for some of these our definition of lower-income families will fail for lack of

in 1970, and this rose to 38 percent in 1975. The 1975 figure could be reduced to the same 31.5 percent experienced by the median-income family if a 25 percent cheaper (than the median) house could be found. For a family in the 20th percentile of incomes (about \$6,914 in 1975), the 1970 percentage was 50 percent and the 1975 percentage 62 percent. For both these lower-income groups, homeownership affordability was already a problem at the start of the decade. At least for the 20th percentile group, the deterioration since 1970 is largely irrelevant because first-time homeownership was already substantially ruled out.

#### IMPORTANT POLICY CRITERIA

In order to judge the usefulness of policy alternatives in dealing with housing affordability problems, the following criteria can be used:

- o What types of homeowners/homebuyers are assisted (first-time purchasers, repurchasers, non-movers)?
- o Is the alternative likely to have substantial impact on housing costs?
- o Is the impact sustainable?
- o What is the income distribution of the people helped by the program?

---

adjustment to local price differentials), and in other cases a comparison of incomes against lower house prices will imply major relocation. In areas where local controls permit, manufactured homes ("mobile" homes) offer a substantially less costly alternative form of ownership. But these homes tend to last shorter periods and depreciate in value over time (at least until recently), so that the kind of alternative they offer is quite different.

- o What are the budget impacts for the federal government? 3/
- o How is housing construction activity affected by the alternative?

The criteria are selected to reflect both continuing public concerns and the foregoing analysis of affordability.

#### POLICY OPTIONS

The federal government seems to have a fairly limited number of types of options in attempting to improve homeownership affordability. These include:

- o Changes in macroeconomic policy
- o Actions to limit increases in specific components of housing costs
- o Homeownership subsidies
- o Alternative forms of mortgage instruments

---

3/ Budget impacts are presented below primarily in terms of costs per housing unit. Aggregate budget costs are difficult to specify for several reasons. In many cases, data are not available on the number of eligible potential participants for a given program. Second, there is usually no basis on which to estimate the share of eligibles who would participate in a given subsidy program. Third, and most important, the programs generally envisioned are not entitlement programs, so that Congress controls aggregate costs, by itself choosing the number of families it wishes to assist based on unit costs and other considerations.



The Congress does, however, have wide latitude in choosing budget levels for homeownership support. Obviously the great variety of macro policies have very different budget impacts (and probably very different impacts on affordability). Homeownership subsidies and other housing-specific assistance are generally not in the form of entitlement programs, so that the Congress can choose any desired funding levels directly based on costs per family and other considerations. The following sections attempt to assist decisions about type of homeownership policies and level of funding, by examining options in terms of the above criteria (including per unit costs where possible).

### Changes in Macroeconomic Policy

Clearly, one highly desirable option would be to improve the rate of growth of money incomes relative to prices generally--which almost certainly would slow the rate of price increases of homeownership cost components relative to income. This could be accomplished through any combination of increased income growth and decreased inflation, both obviously desirable on many other grounds. The cost component analysis in Chapter V reveals growth in sales price is the chief source of overall homeownership cost increase, but that no single subcomponent is important enough to give much price relief by concentrated effort to slow its cost rise alone. In addition, federal policies probably have very limited impact on land prices, wage rates, or most materials prices. The macroeconomic approach seems therefore particularly important, with action on particular subcomponents taken to try to limit their cost increases to that of the general price level.

Success in raising income growth relative to inflation would assist all three major categories of homeowners. It could certainly have substantial impact on housing costs in relation to income. To the extent that the successful macro policy is itself sustainable, the favorable effect on homeownership would certainly be sustained. People at all income levels would be aided, and policies which decreased unemployment would be particularly beneficial to low-income people's ability to

own homes. Budget impacts are heavily dependent on the macroeconomic strategy pursued. If decreased inflation is a part of the macro effects, housing construction activity should be spurred both by improved affordability and perhaps by lower interest rates.

#### Actions Directed Toward Housing Cost Subcomponents

Although interest rates have climbed relatively slowly in the last five years, interest still is a major cost element of homeownership. In addition, the federal government has substantial impact on mortgage market interest rates through monetary policy, regulation of lenders, and the activities of government and government-sponsored lending and mortgage-supporting agencies. These last include FHA and VA as mortgage insurers; HUD and Farmers Home Administration as direct lenders; and GNMA, FNMA, and FHLMC as purchasers of mortgages from original lenders. 4/

Thus actions to lower mortgage interest rates present themselves as an attractive set of federal policies to improve homeownership affordability, for both first-time buyers and repurchasers. However, the interest rate reductions required to return median-income families even to their 1970 ability to afford the median house (as first-time purchasers) are quite substantial. A one percent reduction in mortgage interest rates would have reduced 1975 monthly housing costs for the median existing house by \$18 from \$360 to \$342. Market interest rates for mortgages on existing homes would have to fall from over 9 percent presently to about 6.25 percent in order to give such families 1970 affordability. Such interest rates have not prevailed since 1967. For median new homes, the required reduction would be from 9 percent at present

---

4/ For a detailed description of these agencies' activities, see CBO Staff Working Paper, Housing Finance: Federal Programs and Issues, September 1976.

to just over 3.9 percent, lower than any time during the last 20 years. / 5/ Mortgage interest rates required to bring homeownership into reach of lower-income households are significantly lower still, so that general lowering of rates would mainly benefit middle- and upper-income households.

Substantial reduction of market mortgage interest rates is not a simple matter. The monetary policies that might be used to attempt the reduction could fuel new inflation, aggravating the rise in other homeownership costs and impeding the fall in interest rates. In addition, if the rate of growth of other costs continued to exceed income growth, ever lower and more unrealistic interest rates would be required to hold affordability steady. A more promising approach would be to aim for modest decreases in mortgage interest rates along with greater growth in income relative to prices. The budget impacts of such an approach again vary widely with the particulars of actions undertaken. Lower mortgage interest rates should contribute substantially to new construction.

As indicated in the discussion of macroeconomic alternatives, the potential impact of slowing increases in cost subcomponents other than interest is quite limited, both because no subcomponent is a very substantial share of housing costs and because federal control over such costs is quite limited. Policy levers (actual and potential) are largely regulatory (forest-cutting limitations, wage guidelines including Davis-Bacon requirements, fuel price controls), and the ability to use them is further constrained by market forces and non-cost considerations.

---

5/ Some of the policies that would lower mortgage interest rates would also serve to reduce the cost of shorter-term construction financing, thereby lowering the sale price of new housing and perhaps indirectly of existing housing. To the extent that that occurs, the required mortgage interest reductions would be smaller.

Which group of homeowners would be aided is, of course, dependent on which price subcomponents receive emphasis, but no one would benefit greatly unless action were taken on many of the subcomponents simultaneously. While a full discussion of actions to reduce subcomponent cost increases is beyond the scope of this paper, it seems most likely that actions can most reasonably be directed toward limiting subcomponent increases to near the general inflation rate while concentrating on reducing overall inflation.

### Homeownership Subsidies

A further federal alternative already employed is subsidizing of home purchase. This has proceeded largely through subsidization of interest rates--either annually through payment of part of a buyer's mortgage payment (e.g., Section 235), or in one lump sum by agreeing to buy below-market loans at above-market prices from private lenders who agree to make them, and then reselling them at a loss (GNMA "Tandem" programs). 6/ The fact that

---

6/ Of course the largest federal homeownership subsidy by far arises through the income tax deduction for mortgage interest and property taxes (about \$8.2 billion in 1976). This tax expenditure is not given extensive treatment here, largely because major changes in it are not under immediate active consideration. Suggestions to limit the maximum size of the deduction, to restrict it to one home per taxpayer, or to convert it to a tax credit would reduce benefits to the wealthy. But such plans would have little impact on the homeowners discussed in this paper. A suggestion under longer-term consideration, but with a politically cloudy future, is to eliminate the deduction. A median-income family of four buying a median house in 1975 would have suffered an increased tax burden of about \$580 had the deduction not existed.

these are viewed as interest subsidies is really incidental, except sometimes as a means of determining subsidy amount. Subsidy payments in the same amounts could be made to the buyers and called general homeownership grants or some other name.

Subsidy amounts required to restore 1970 affordability (again for first-time buyers) are quite substantial. At the end of 1975, the annual subsidy cost for a median-income purchaser of the median existing house would have been about \$635. The one-shot "tandem" loss would have been about \$5,090. 7/ For a purchaser of the median new house, annual subsidy cost would have been almost double at \$1,126 with "tandem" cost of about \$9,650. And, of course, the costs would have to increase further to compensate for future declines in incomes relative to housing costs if those were to occur.

It is highly notable that current Section 235 and recent "tandem" programs were not to be used for existing houses (except substantially rehabilitated houses under Section 235). This increases their value as contributors to housing construction activity and macro-economic goals. 8/ But it greatly increases the costs of using such programs to improve homeownership affordability, because of the higher noninterest costs of newly built homes. Actual unit cost of Section 235 was \$850 per year and of GNMA Tandem, \$1,819 (one-time cost) in 1976.

It is also important to note that the current programs are in no way restricted to first-time purchasers.

---

7/ Assuming 25-year mortgage with expected actual life of 12 years, 75 percent of sale price.

8/ Programs subsidizing purchase of existing homes could encourage construction of new homes by improving the resale market for homeowners who wish to sell their present home and move to a newly constructed one. But this construction impact would probably be small compared to the effect of providing subsidies for new-home purchase only.

Absence of such a restriction also helps meet macro-economic goals. But since our analysis shows that people already owning homes have not been losing ground in the 1970s, at least in general, subsidy programs designed in the future specifically to deal with affordability problems might well be targeted to first-time purchasers.

A third important note is that households with lower than median incomes require much deeper subsidies. A family at the 40th percentile of incomes in 1975 could afford (with 26.85 percent of income) to buy the median existing house only with a \$1,235 annual subsidy (equivalent to a 3 percent interest rate). <sup>9/</sup> A family at the 20th percentile could afford that house only with a \$2,450 annual subsidy, which in a "interest subsidy" program would imply a rate substantially less than zero. The current Section 235 program is really only reachable by families just below median income (i.e., 90-95 percent of median income) if at all, in most places (based on house prices actually experienced and required family contributions); and the Tandem programs, involving interest rates at seven and one-half percent and up, are even less accessible to low- and moderate-income people. Thus funds spent on modest homeownership affordability subsidies are very unlikely to go to low and moderate income people. <sup>10/</sup>

---

<sup>9/</sup> More current calculations are precluded by lack of data on family incomes during 1976.

<sup>10/</sup> See CBO paper, Housing Assistance for Low- and Moderate-Income Families, (January 1977) for an extended discussion of alternative means of assisting low-income people.

Alternative subsidy programs could be targeted differently from Section 235 and GNMA Tandem programs. Without requiring basic changes in program form, the subsidies could be restricted to purchasers of existing rather than new homes, and/or to first-time homebuyers, and/or to people of lower incomes (of course involving higher per unit costs). Such restrictions might more directly address the issue of homeownership affordability, although with costs in terms of such other objectives as construction stimulus and mobility.

### Alternative Mortgage Instruments

A final major alternative to improve affordability is the use of various graduated payment or deferred payment mortgages. The former provides lower monthly payments in early years and higher payments in later years of mortgages, contrasted to the level-payment mortgage now in common use. This pattern allows the homebuyer family to take advantage of the fact that inflation will tend to increase its income over time (particularly for the young, first-time purchaser) while mortgage principal and interest rate will be fixed. While there are disadvantages in slow initial build-up of equity and some risk of future incomes falling short of expectations, the plan has the powerful advantage of improving affordability for the key first-time purchaser group without involving direct federal expenditures. (Some tax expenditures would be involved because of larger interest costs that slower equity build-up would create, and government insurance of the mortgages could result in outlays later.) Various forms of such mortgages have been proposed, with legislation required if the loans are to be federally insured (e.g., Senator Brooke's proposed S. 3692), and permission from regulatory agencies required for lenders to make some types of loans. The Ford Administration proposed a plan to provide insurance for a limited number of such mortgages under Section 245 of the National Housing Act.

Graduated payment mortgages could be available to buyers of existing as well as new homes, and to first-time buyers as well as others. Targeting may not be important from a federal viewpoint if public costs are minimal, but if the insurance costs prove substantial, it might be desirable to limit availability to first-time

buyers and/or buyers of existing houses, with the latter as always affecting impact on new construction activity. Graduated payment mortgages would be of limited use to lower-income people, since if initial payments were to be lowered enough to enable them to afford homeownership, the rate of increase in payments required to meet their full obligation over the mortgage term might well be higher than reasonable expectations of income growth, except for the most upward mobile.

Deferred payment mortgages involve partial payment of mortgage costs by the federal government in early years, with later repayment with interest. The advantages and disadvantages are quite similar to those of graduated payment mortgages, with the important exception that substantial government outlays are required at the outset. In terms of current budget outlays for such a program, the annual cost per unit to reach any particular affordability standard is initially the same as for an ordinary direct subsidy discussed above. This is because no significant repayments of the government's payments would be made until later years. Thus, for example, the cost of returning a median income, first-time homebuyer's family to its 1970 ability to afford a median price house would again be \$635 a year. The long-run net cost of deferred payment mortgages should be zero. Once the government's payments had been in operation for a number of years, annual total outlays should be zero, since repayments on previously made loans should offset federal expenditures on new loans (assuming program size was unchanged). These outlays might again best be targeted to first-time buyers, with the focus on existing housing if affordability rather than construction stimulus is the goal. Low-income people would again not benefit unless the early government contributions were extremely large, and even then might not be able to handle the later payments.

Downpayment affordability can be improved by improving income to price increase ratios (macroeconomic), subsidizing downpayments, or reducing downpayment requirements. The macroeconomic approach is in concept obviously the same for downpayments as for annual costs. The subsidy approach probably should be restricted to



first-time buyers because of the effects of sales price increases on downpayment ability of families who are already homeowners, as explained in Chapter IV. Required downpayments are already very low for FHA-insured loans.

Changes in the FHA program might expand its use and thus provide relatively low downpayments to some homebuyers. The major problem with such an approach is that potential homebuyers with relatively low income, who need aid in meeting downpayment requirements, would be hard pressed to meet the enlarged monthly mortgage payments that low downpayments necessarily produce. For example, for a 30-year loan at an 8.5 percent interest rate, the reduced downpayment on a median 1975 new house results in additional annual payments of \$660, an increase of nearly 15 percent in total annual housing outlays over costs with a 25 percent downpayment. Comparable problems apply to VA and Farmers Home Administration programs involving low downpayment loans.

Table 14 summarizes the impacts of major policy types according to the criteria suggested to evaluate measures to improve affordability.

TABLE 14. SUMMARY OF POLICY IMPACTS

Types of Alternatives	Type of Home-owner Assisted	Impact on Housing Costs	Sustainability of Impact
Macroeconomic efforts to increase incomes relative to general price levels	All	Potentially substantial	High
Lowering mortgage interest rates	First-time buyers and repurchasers	Potentially substantial	Difficult to sustain, particularly if trying to offset continued rise in costs relative to incomes
Curbing increases in prices of other housing cost subcomponents	All, depending on which subcomponents	Very limited for any given subcomponent alone	Limited
Subsidies Section 235 GNMA Tandem	Purchasers of new homes, first-time or repurchasers	Modest, because subsidies not too deep	Limited in case of continuing price rise relative to income
Alternative subsidies targeted to first-time buyers and/or existing housing and/or lower-income people	Potentially limited to first-time purchasers and/or existing housing	Depends on subsidy level	Limited in case of continuing price rise relative to income
Graduated and deferred payment mortgages	All but non-movers, but could be limited to first-time buyers and/or existing homes	Moderate, because substantially lowered initial payments require rapid increase	Limited in case of continuing price rise relative to income

a/ Actual annual per unit cost for units reserved in 1976.

b/ Actual one-time cost per unit in 1976.

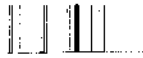
c/ Estimated first-year cost for program to return median income first-time purchaser of existing housing to 1970 affordability position as of 1975.

TABLE 14. SUMMARY OF POLICY IMPACTS (continued)

Income Distribution of People Assisted	Effect on Housing Construction	Budget Impacts
All income groups, and perhaps particularly lower-income people	Significantly favorable	Depends on mechanisms used
Mainly middle- and upper-, since lower-income people cannot afford to become homeowners without deeper assistance	Significantly favorable	Depends on mechanisms used
All, depending on subcomponent	Limited because of limited cost impact	Depends on mechanisms used
Limited largely to middle- and upper-income	Favorable, but often substitutes for activity which would occur anyway	\$ 850 <u>a/</u> \$1,819 <u>b/</u>
Potentially including lower- and moderate-income if deeper subsidies	Limited, if directed away from new construction	\$ 635 <u>c/</u> or \$1,235 <u>d/</u>
Middle- and upper-income, and upwardly mobile moderate-income	Depends on targeting toward or away from new home purchasing	Deferred \$635 <u>e/</u> Graduated: some tax expenditures and insurance costs

d/ Estimated first-year cost for program to move first-time purchaser at 40th percentile of income distribution to 1970 affordability for median income buyer, as of 1975.

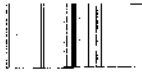
e/ As in footnote c/, but note that in later years subsidies would be repaid.



---

APPENDIX

---



Methods of analysis are provided below, labeled according to the Chapter of the body of the paper in which they were used.

### III FIRST-TIME HOMEBUYERS

Changes in costs for homebuyers were computed as follows. House prices for each year were obtained from National Association of Realtors Existing Home Sale Series (existing houses); Construction Report C-25, Department of Commerce (median price of new houses); Construction Report C-27, Department of Commerce (fixed-quality new houses). (Note that only the last series is limited to houses sold under FHA.)

Mortgages were assumed to be 75 percent of purchase price for all house types in each year (close to averages for conventionally financed houses). No opportunity costs from downpayments were imputed. Separate mortgage interest rates for existing and new homes were obtained from Federal Home Loan Bank Board series for effective conventional rates (including discounts, fees). Mortgage term was fixed at 25 years (again close to actual averages). From these components, mortgage payments were computed.

Operating costs (hazard insurance, property taxes, maintenance and repair, and heating and utilities) were obtained from Specific Characteristics of FHA Section 203 homes sold, using average costs for homes of the corresponding price in each year, available separately for new and existing housing. They were simply added to mortgage payments to obtain total housing costs.

Income patterns against which these were compared were those of all families in the population (or subcategories by income or age). These were not limited to families who actually were first-time buyers in a given year, because the intent was to examine changes in

affordability for all potential and actual buyers. The incomes of actual buyers would provide biased representations.

### III BUYERS OF HOMES WHO ARE ALREADY HOMEOWNERS

With one key exception, the data, assumptions, and means of basic housing cost analysis were the same for second-time buyers as for first-time buyers of existing houses. The exception is the assumption that the mortgage principal stays fixed over time for the repurchasers, as a result of the assumptions (a) that the value of their previous house increased its sales price in the same amount as the sales price of their next house, and (b) that that capital gain was (at least could be) applied to the new downpayment.

The analysis of repurchasers' ability to move up to a better house involved simply (a) the computation of total housing cost which a fixed share of their income could pay, and then (b) the trial-and-error discovery of the house price for which that dollar amount covered all housing costs.

Incomes were again of all families (or again subgroups by income, etc.) rather than those of actual repurchasers in a given year.

### III HOMEOWNERS WHO DO NOT MOVE DURING THE PERIOD

Rates of cost change for non-movers were based initially on the assumption of the homes being purchased in 1970 (and otherwise using data and assumptions as for first-time homebuyers). The house sale price and interest rate (presumably from more distant past purchase) which would result in income and total housing costs moving at the same rate from 1970 to 1975 were computed by trial and error.

Incomes were again for all families, rather than for non-movers alone.



#### IV DOWNPAYMENTS

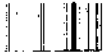
The analysis of downpayments proceeds with the same data and assumptions as in Chapter III--the key being that downpayments are assumed to remain at 25 percent of purchase price.

#### V COMPONENTS OF HOUSE PRICE INCREASE

Changes in housing cost components are computed from the data and assumptions described for first-time buyers of new housing. Percent contributions are computed according to the following method. Calculate the total dollar increase in housing costs 1970-1975. Calculate the dollar increase from the increase in actual sales price alone in the period and compute what percentage that (plus part of the hazard insurance cost increase corresponding to rising sales price) constitutes of the total increase in costs. That provides sales price contribution. Then compute the further dollar cost increase from the actual rise in interest rates (with sales price at 1975 levels) and compare it to the total cost, providing mortgage interest's contribution. Do the simple calculation for each operating cost.

#### VI THE POTENTIAL OF FEDERAL ACTION TO IMPROVE AFFORDABILITY

The methodology for computations in this section is an extension of the straightforward approaches already discussed.



---

GLOSSARY

---

1. 0. 10. 10

10. 10. 10

10. 10

10

---

GLOSSARY

---

FHA. Federal Housing Administration.

FHLMC. Federal Home Loan Mortgage Corporation.

FNMA. Federal National Mortgage Association.

GNMA. Government National Mortgage Association.

HUD. Department of Housing and Urban Development.

VA. Veterans Administration.